



UNIVERSITI PUTRA MALAYSIA

DISTRIBUTED PURCHASING ASSET MANAGEMENT

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**MASTER OF SCIENCE
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DISTRIBUTED PURCHASING ASSET MANAGEMENT

By

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**Thesis submitted in Fulfillment of the Requirement for the Master Of
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DISTRIBUTED PURCHASING ASSET MANAGEMENT

By

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NOVEMBER 2003

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Faculty : Faculty of Computer Science and Information Technology

Distributed Purchasing Asset Management was developed as innovative effort to encourage flexibility between the purchasing departments and management. The system provides collaborative way and provided a better way in accessing information of asset, item, purchase order and invoice. This report has discussed the problem faces with current system. The system developed for purchaser department, it has several major components, which is asset, item, purchase order, invoice and searching. The user can add, edit, and delete the data uploaded from within the web page.

In this project, Distributed Purchasing Asset Department was developed with MySQL as the database back end and Hypertext Processor (PHP) as the web page scripting language. Since the information is keep on the distributed, it is stored and accessible anywhere or any time from other branch or whenever there us an internet connection. User can easily enter, update or searching by logging on to a web site. Security is maintained by the user of username and password. The user has their own if number which give them access the information.

**Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Master Sains**

PENGURUSAN PEMBELIAN ASET TERAGIH

Oleh

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Pengurusan Pembelian Aset Teragih dibangunkan sebagai inovatif untuk memudahkan perhubungan antara jabatan pembelian dan pengurusan syarikat. Sistem menyediakan perhubungan kerjasama antara cawangan-cawangan syarikat dan cara terbaik untuk mencapai maklumat aset syarikat, item, pesanan pembelian dan invois. Sistem ini dibangunkan untuk jabatan pembelian, di mana mempunyai beberapa komponen utama di dalam sistem iaitu asset, item, carian, invois dan pesanan pembelian. Pengguna dapat mengubah suai kandungan data asal selepas mengeksport data.

Dalam projek ini, Pengurusan Pembelian Aset Teragih telah dibina dengan menggunakan MySQL sebagai pangkalan data dan PHP sebagai bahasa skrip laman web. Pengurusan Pembelian Aset Teragih ini bertujuan untuk pengguna mencapai rekod-rekod berkaitan dengan pembelian aset secara teragih. Sistem ini dapat digunakan bila-bila masa samada di cawangan-cawangan ataupun di mana tempat yang mempunyai sambungan ke Internet. Pengguna dapat memasuki, mengemaskini dan membuat carian secara mudah dengan melayari laman web tersebut. Keselamatan laman web di awasi dengan cara menggunakan nama pengguna dan kata laluan pengguna. Pengguna yang menggunakan kod pengenalan sebagai kata laluan sahaja yang dapat mencapai maklumat di dalam sistem ini.

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APPROVAL SHEETS

This thesis submitted to the Faculty of Computer Science and Information Technology of University Putra Malaysia has been accepted as fulfillment of the requirements for the degree of Master of Science.



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DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations, which have been duly acknowledge. I also declare that is has not been previously or concurrently submitted for any other degree at UPM or ant other institutions.



(Norsiah binti Jusoh)

Date: November 2003

TABLE OF CONTENT

	PAGE
ABSTRACT	ii
ABSTRAK	iv
ACKNOWLEDGEMENTS	vi
APPROVAL SHEETS	vii
DECLARATION	viii
LIST OF TABLES	xiv
LIST OF FIGURES	xv
LIST OF ABBREVIATIONS	xvi
CHAPTER	
1. INTRODUCTION	
1.1 Overview	1
1.2 Problem statement	3
1.3 Aim and objective	4
1.4 Scope of project	5
1.5 Time Frame	5
1.6 Conclusion	6
2. LITERATURE REVIEW	
2.0 Introduction	7

2.1	Study Case	7
2.2	Distributed computing system	8
2.3	Hypertext Processor (PHP) language	10
2.3.1	PHP features	12
2.3.2	PHP Architecture	12
2.3.3	How file are interpreted	14
2.3.4	Web browser	15
2.3.5	Database server	16
2.3.6	Comparison between PHP and other language	17
2.3.7	Strength of PHP	19
2.4	The MySQL DBMS	20
2.4.1	Strength of MySQL	21
2.5	Phpmyadmin	22
2.6	Conclusion	22
3.	ANALYSIS	
3.0	Introduction	23
3.1	Requirement Analysis	23
3.2	Specification Analysis	24
3.3	Problem formalization	25
3.4	Conclusion	26

4.	METHODOLOGY	
4.0	Introduction	27
4.1	Problem Solving Method	27
4.1.1	Methodology	27
4.1.2	Development technique	32
4.2	Conclusion	34
5.	SYSTEM DESIGN	
5.0	Introduction	35
5.1	System Design	35
5.1.1	The hierarchic of Distributed Purchasing Asset Department	35
5.1.2	Data Flow Diagram	37
5.1.3	Database table	39
5.2	System architecture	41
5.3	Information Gathering	42
5.4	System requirement	42
5.4.1	Hardware requirement	42
5.4.2	Software requirement	43
5.5	Conclusion	44

6. SYSTEM IMPLEMENTATION

6.0	Introduction	45
6.1	System Configuration	45
6.1	Testing and verification	47
6.2	The functions of Distributed Purchasing Asset Management	49
6.2.1	Main page	49
6.2.2	New	50
6.2.3	Edit	51
6.2.4	Item	52
6.2.5	Purchase Order	52
6.2.6	Invoice	53
6.2.7	Searching	54
6.3	Conclusion	55

7. RESULT AND DISCUSSION

7.0	Introduction	56
7.1	Result and Conclusion	56
7.2	Risk Analysis	57
7.3	Conclusion	58
7.4	Future Work	59

REFERENCE

APPENDIX

LIST OF TABLE

Figure	Page
Table 1: Work schedule using Gantt Chart	6

LIST OF FIGURES

Figure	Page
2.1: PHP architecture	13
4.1: Database table's	30
5.1: The hierarchic of Distributed Purchasing Asset Management	36
5.2a: Data flow diagram – level 0	37
5.2b: Data flow diagram – level 1	38
5.3: The main database	39
5.4: Distributed Purchasing Asset Management Architecture	41
6.1: Server IP address	46
6.2: Main page	49
6.3 New Asset Tag information	51
6.4: Update Organization Information	51
6.5: New Item Master Information	52
6.6: Edit Purchase Order Information	53
6.7: Edit Invoice Information	54
6.8a: Searching- Asset Dictionary	55
6.8b: Searching- Asset Dictionary	55

LIST OF ABBREVIATIONS

Abbreviations	Word
PHP	Hypertext Preprocessor
MySQL	My Ess Que Ell
PC	Personal Computer
HTML	Hypertext Makeup Language
SAPI	Server abstraction layer
GUI	Graphic User interface
ASP	Active Server Pages
PO	Purchase Order
WWW	World Wide World
IP	Internet Protocol
ISP	Internet Service Provider

CHAPTER I

INTRODUCTION

1.1 Overview

The Distributed Purchasing Asset Management plays an important role in the purchasing department of the office. Office normally is separately by a several of departments which have on their activities. Many departments have in an office such as Human Resource department, Purchasing department, Administration department, Accounts department and Marketing department. Normally almost all of their activities are not distributed task.

Coordinating and monitoring the work is very difficult and raises a number of the management problems. Hence, this project has chosen one of the departments in the office which is Purchasing Department. This project which is called Distributed Purchasing Asset Management is one part of the electronic office. This introduced a service that allows the management and staff of any site to deliver their jobs and activities. The Distributed Purchasing Asset Management easily and effective allow to access their activities. It also cut the cost and the time used.

The Distributed Purchasing Asset Management is inherently a distributed system. It consists of the back end processes (server side) and the front end interface (application server side) for users to interact with back end process. The database system will store all the necessary information for the needs of the purchasing department.

The Distributed Purchasing Asset Management can create, edit and print purchase orders and invoices as well as maintain a database of company capital assets for tracking purposes. A computer support department could use Distributed Purchasing Asset Management to track computer equipment using purchase info, location, warranty details and others. Distributed Purchasing Asset Management can also be used by the accounting or purchasing department to track vendors and than generate, edit and issue purchase orders. Purchase order status can also be updated when purchases are received and customer or inter departmental billing can be initiated from a purchase order.

1.2 Problem statement

The JBMA SDN. BHD has three branches in three different locations which are Kuala Terengganu, Johor Bharu and Kuala Lumpur. The company faces difficulties in managing their purchased item. So the company needs the system to supports in accessing the multi computer users spread all over the respective locations.

Every day, the quantity of assets in the Purchasing Department increased. Sometimes the asset is from the same or different company and vendor. To find out all sorts of information about any asset or item manually is very difficult. A lot of information such as, when it was purchased, from which vendor and on which purchase order, warranty expiration and others are needed.

In the Purchasing Department there are several parts of tasks such as the invoice part, purchase order, asset and others. This must be coordinated to ensure a working result and no redundancy. The staffs also need to, at times, communicate and collaborate closely; while at other times can independently work on parts of a task. Management and staff need to flexibly configure their environment supports for artifact management, communication, work coordination and monitoring.

1.3 Aims and Objective

The objectives of this project of developing a Distributed Purchasing Asset Management are:

- To provide a full client and server electronic purchasing, in which the clients will be at purchasing department or anyway.
- Implementing system using distributed computing to track JBMA Company's capital asset from the initial purchase.
- To provide an easy way for the management to access purchasing from different geographic locations
- To provide an easy way for the purchaser to search and do their activities.
- To provide a centralized location for collecting and presenting everything relevant to the purchase activities.
- To cut on cost and time to ensure easy and objective access on purchaser's activities.

1.4 Scope of Project

In conjunction to the objectives mentioned earlier, it have been done for this system, it has been agreed to develop an electronic purchasing system base on :-

- i. Maintain a database of capital assets for tracking purposes and a database of items that would not be considered capital assets.
- ii. Group individual assets together into a configuration assigned to an individual or to a physical location.
- iii. Find out all sorts of information about any asset or item; when it was purchased, from which vendor and on which purchase order, warranty expiration and so on.

1.5 Time Frame

The time frame for this project is between the months of June 2003 until November 2003, Table 1 has shown the schedule using Gantt chart. The identification of problem statement, scope, objective and literature review took almost a few weeks to complete. The design and developing staged started on early of September 2003 and finish on early of November 2003. Documentation and testing stage were done during October and early of November. Finally, the project is expected to be submitted by middle of November 2003.

Work Tasks	Period (in week)								
	1	2	3	4	5	6	7	8	9
Primary study									
Data Gathering									
Data Analysis									
Documentation									
Interfaces Design									
Coding									
Testing & Applying									

Table 1: Work schedule using Gantt chart

1.6 Conclusion

This chapter has presented the project's overview, objective, problem statement, scope and time management. Chapter 2 will be the literature review. It will introduce a review of Distributed Purchasing Asset Department and the previous done in this area.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

In this chapter, the related works such as case study, distributed system, PHP and MySQL database. This chapter also covers the architecture of PHP, strength of PHP and MySQL.

2.1 Case Study

JBMA Sdn Bhd is Furniture Company. The JBMA SDN. BHD has three branches in three different locations which are Kuala Terengganu, Johor Bharu and Kuala Lumpur. Every each branch, they have purchasing department. The purchasing department handles capital assets from the initial purchase as not distributed system. As far as Asset Management is concerned, capital asset or capital equipment for examples might include a personal computer, a photocopier or a piece of office furniture. Most businesses need to keep track of these assets for accounting purposes. The user also wants to keep track of that would not normally be considered a capital asset for examples might include an inventory of spare parts. An Item could be a component of an asset but with